

NOTES ON BROMELIACEAE. III

Lyman B. Smith

VENEZUELA

NAVIA CRISPA L. B. Smith, sp. nov.

A *N. glauca* L. B. Smith, cui affinis, lamini foliorum margine valde crispatis, inflorescentia e spicis multis brevibus digitatim bipinnata differt.

Plant low; stem to 10 cm. long, covered with the remains of old leaves; living leaves numerous in a dense rosette at the apex of the stem, 2½ cm. long, the sheaths broadly ovate, short, brown, the blades linear, acuminate, 12 mm. wide, subdensely serrulate, strongly crisped along the margin, marked with a pale median stripe, sparsely and obscurely white-pilose beneath; inflorescence sessile, subglobose, digitately bipinnate from many short spikes; outer bracts few, foliaceous but greatly reduced; floral bracts broadly ovate, acute, about equaling the sepals, subentire, thin, white, minutely pilosulous; pedicels short; sepals free, lanceolate, acute, 8 mm. long, strongly nerved, brown, pilosulous, the posterior ones narrowly alate-carinate; petals white (J Maguire); capsule shorter than the sepals; seeds naked, dark, reticulate. Pl. I, fig. 1: Leaf-blade x 1; fig. 2: Floral bract x 5; fig. 3: Posterior sepals x 5.

Type in the U. S. National Herbarium, No. 2028894, collected among boulders near northeast base of mountain, Cerro Moriche, Río Ventuari, Amazonas, Venezuela, altitude 250 meters, January 16, 1951, by Bassett Maguire, R. S. Cowan and John J. Wurdack (No. 30966).

Dr. Maguire has kindly consented to my anticipating the publication of the above species in his report in order that it may be used elsewhere in the meantime.

COLOMBIA

GUZMANIA GLOBOSA L. B. Smith, *Phytologia* 4:362. 1953.

Type in the Gray Herbarium, collected on mounds of moss, above El Diviso, Department of Nariño, Colombia, altitude 705 meters, November 13, 1946, by M. B. and R. Foster (No. 2152).

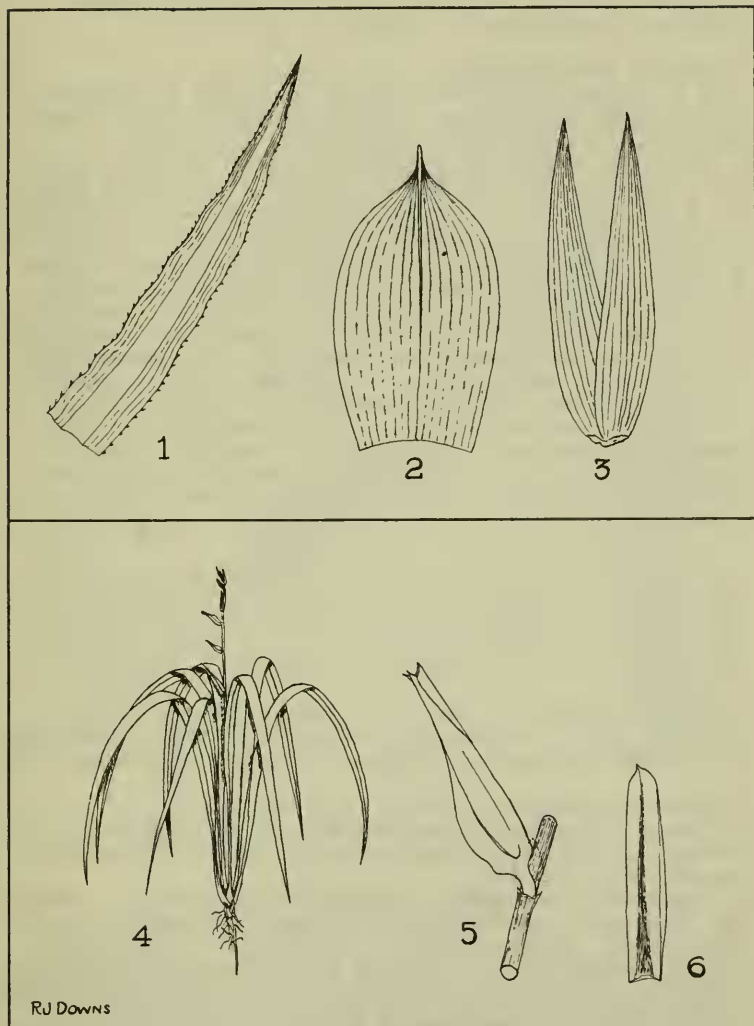
By an inexplicable oversight, the type reference was omitted in the original description of this species although reference was made to the observations with it in noting the jelly in the inflorescence and the color of the floral bracts.

PITCAIRNIA ECHINATA Hook. var. VALLENSIS L. B. Smith, var. nov.

A var. *echinata* differt petalis roseo-aurantiacis nudis.

Differs from the typical variety in its rose-orange naked petals. Also the stamens are slightly exerted contrary to what is indicated by Hooker. Mez, however, included other collections under *P. echinata* and called the stamens exerted (DC. Mon. Phan. 9:416; Pflanzenfam. IV. 32:244).

Plate I

Fig. 1-3: *Navia crisa*; fig. 4-6: *Pitcairnia occidentalis*.

Type in the Chicago Natural History Museum, collected on lomas of the Cuchilla de Santa Bárbara, Cartago, Department of El Valle, Colombia, altitude 1,000-1,140 meters, November 17, 1946, by J. Cuatrecasas (No. 22963).

PITCAIRNIA OCCIDENTALIS L. B. Smith, sp. nov.

A *P. reflexiflora* André, cui vix affinis sed in clave Mezii juxta ponenda, inflorescentia laxe pauciflora, floribus secundis, pedicellis minoribus, sepalis majoribus differt.

Epiphytic, caulescent, flowering shoot 42 cm. high; stem 4 mm. in diameter, covered with roots and old leaf-bases; leaves all alike, fascicled at the apex of the stem, 5-6 dm. long, entire, sparsely and very obscurely brown-lepidote beneath, glabrous above, the sheaths small, ovate, the petioles short but distinct, the blades linear-lanceolate with a strong narrow median channel, flat, caudate-acuminate, to 30 mm. wide; scape erect, very slender, brown-flocculose; scape-bracts large, all but the uppermost exceeding the internodes, but divergent and very narrow so that the scape is completely exposed; inflorescence simple, very laxly 6-flowered, 12 cm. long, sparsely and obscurely flocculose when young; floral bracts ovate, acute, exceeding the pedicels, thin; pedicels 7 mm. long; flowers secund, orange; sepals oblong, broadly rounded and apiculate, 30 mm. long, ecarinate, thin; petals naked; ovary largely superior. Pl. I, fig. 4: Plant x 1/10; fig. 5: Flower x 1; fig. 6: Sepal x 1.

Type in the Comisión de Botánica de la Secretaria de Agricultura y Fomento del Departamento del Valle del Cauca, collected at Córdoba, basin of the Río Dagua, western slope of the Cordillera Occidental, Department of El Valle, Colombia, altitude 39-60 meters, November 14, 1945, by J. Cuatrecasas (No. 19849).

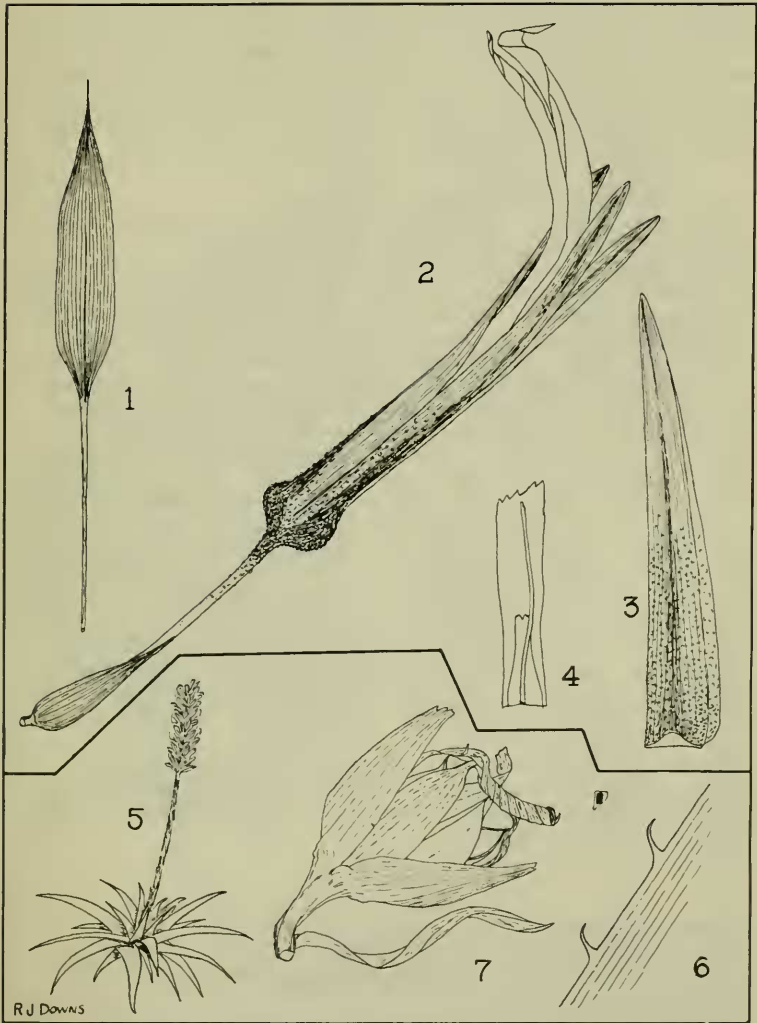
The flowers are so young in the only inflorescence now available that it is impossible to verify the form of the ovules or the relative length of petals and stamens at anthesis.

PITCAIRNIA VERRUCOOSA L. B. Smith, sp. nov.

Planta e fragmentis solum cognita, a *P. spectabili* Mez, cui affinis, pedicellis fere rectis, sepalis verrucosis, petalis appendiculatis differt.

Caulescent; stem erect, probably climbing, 1 cm. in diameter, the lower part long-setose with the persistent nerves of decayed leaves; leaves all alike, entire, rigid, glabrous, the sheaths broadly ovate, encircling the stem, brown, the petioles 3 dm. long, slightly widened toward the base and apex, centrally 6 mm. wide with a strong median channel, the blades lance-oblong, flat, 3-4 dm. long, 7-8 cm. wide, acuminate, rounded at the base, bright violet beneath, green above; scape and axis of the inflorescence unknown; inflorescence probably simple; floral bracts ovate, acuminate, 17 mm. long; pedicels spreading, nearly straight, slender, 4 cm. long, verrucose and lepidote toward the apex; sepals very narrowly triangular, obtuse, 6 cm. long,

Plate II



RJ DOWNS

Fig. 1-4: *Pitcairnia verrucosa*; fig. 5-7: *Puya sanctae-martae*.

coarsely verrucose especially at the green base, elsewhere red-violet; petals 9 cm. long, acute, reddish yellow, at base bearing a bidentate scale 13 mm. long; ovary almost wholly superior. Pl. II, fig. 1: Leaf x 1/10; fig. 2: Floral bract and flower x 1; fig. 3: Sepal x 1; fig. 4: Base of petal x 1.

Type in the Chicago Natural History Museum, collected in a ravine by Km. 51, left bank of the Río San Juan, near Querebral, basin of the Río Digua, western slope of the Cordillera Occidental, Department of El Valle, Colombia, altitude 1,540-1,650 meters, February 25, 1947, by J. Cuatrecasas (No. 23738).

PUYA SANCTAE-MARTAE L. B. Smith, sp. nov.

A *P. kuntzeana* Mez, cui in clave Mezii juxta ponenda, pedicellis longioribus, sepalis multo minoribus differt.

Aggregated, flowering plant at least 7 dm. high (the top of the inflorescence missing in the single very old specimen seen); leaves many, densely rosulate, 3 dm. long, the blades narrowly triangular, 3 cm. wide, flat, laxly serrate with pale curved spines 4 mm. long, glabrous at least with age; scape erect, 15 mm. in diameter, glabrous; scape-bracts numerous, very densely imbricate, only the lowest at all foliaceous, the others thin and deciduous with age, probably reflexed but undoubtedly completely covering the scape; inflorescence simple, racemose, densely cylindric, 30-45 cm. long (1 Foster), 7 cm. in diameter and glabrous in fruit; axis stout; floral bracts reflexed in age lanceolate, 5 cm. long, thin; pedicels arcuate-spreading, 15 mm. long, rather slender and slightly thickened toward apex; sepals lanceolate, about 25 mm. long, ecarinate, nerved; petals contorted in drying; seeds alate. Pl. II, fig. 5: Plant x 1/20; fig. 6: Leaf-margin x 1; fig. 7: Floral bract and flower x 1.

Type in the Gray Herbarium, collected on perpendicular rocks in full sun, mountains above Hacienda Cincinnati, Santa Marta, Department of Magdalena, Colombia, August 1946, by M. B. and R. Foster and E. Smith (No. 1408). Duplicate in the Herbario Nacional Colombiano.

Because of the extreme age of our only material of *Puya sanctae-martae* it is not possible to give further distinctions from *P. kuntzeana* although others such as the character of the indument seem very probable.

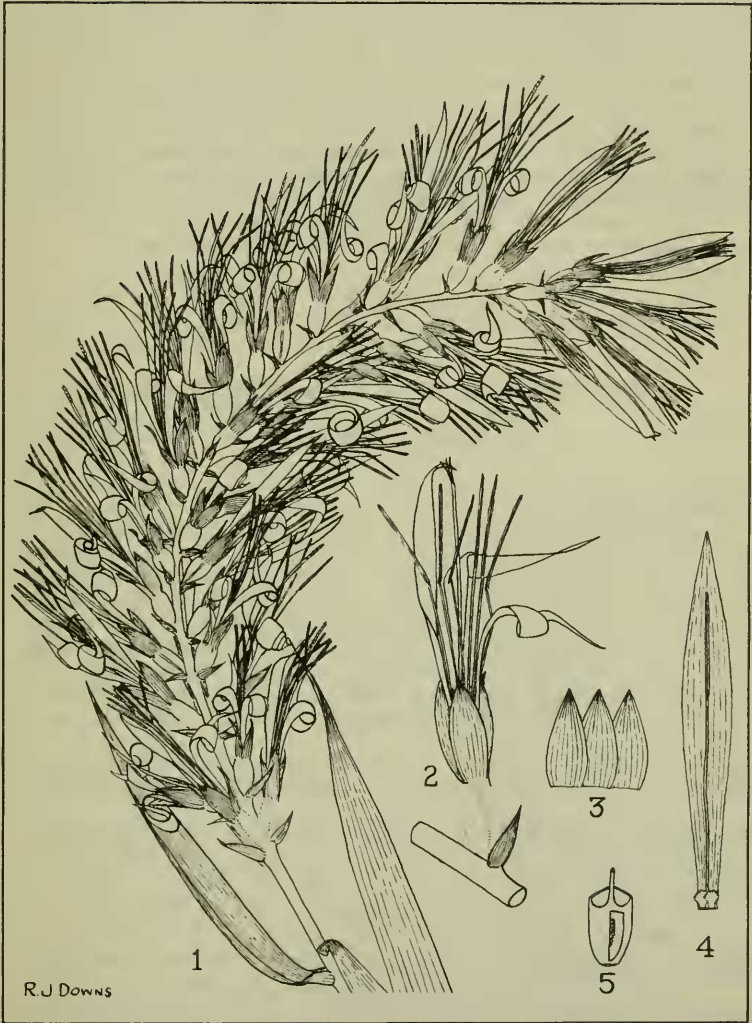
BOLIVIA

BILLBERGIA CARDENASII L. B. Smith, sp. nov.

A *B. stenopetala* Harms, cui affinis, bracteis florigeris quam ovario brevioribus, sepalis minoribus late acutis, tubo epigyno angusto differt.

Leaf-blade ligulate, broadly acute and apiculate, 4 dm. long, 35 mm. wide, covered on both sides with coarse cinereous appressed scales, laxly serrate with dark curved teeth 2 mm. long; scape slender, densely and very finely white-floccose; scape-bracts lanceolate, acute, 13 cm. long, rose; inflorescence simple, densely many-flowered, its axis white-flocculose; floral

Plate III



Billbergia cardenasii

bracts ovate, acute, shorter than the ovaries, membranaceous, glabrous except at base; sepals equal, ovate, broadly acute, 10 mm. long, thin, nerved, orange, nearly glabrous; petals linear, acute, spirally recurved, 5 cm. long, yellow, bearing two broadly obovate denticulate scales at base; ovary ellipsoid, strongly trigonous, 10 mm. long, sulcate, white-flocculose, epigynous tube small and narrow. Pl. III, fig. 1: Inflorescence xl/2; fig. 2: Floral bract and flower x 1; fig. 3: Sepals x 1; fig. 4: Petal x 1; fig. 5: Longitudinal section of ovary x 1.

Type in the U. S. National Herbarium, No. 2103978, collected from material cultivated in Cochabamba and of uncertain origin, although probably from Yungas del Chapare, Department of Cochabamba, Bolivia, February 1952, by M. Cárdenas (No. 4907).

It is a pleasure to dedicate this handsome species to Dr. Martín Cárdenas who already has discovered many new and beautiful bromeliads.

ADDITIONAL NOTES ON THE GENUS AEGIPHILA. XII

Harold N. Moldenke

AEGIPHILA Jacq.

Literature: Briquet in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 166. 1894; Junell, Symb. Bot. Upsal. 4: 83. 1934; Moldenke, Brittonia 1: 245--477. 1934; Moldenke, Phytologia 1: 182--208, 222--240, & 248--272 (1937), 1: 289--304 (1938), 1: 364--368 (1939), 2: 57--64 (1941), 2: 387--400 (1947), 2: 437--450 (1948), 3: 46--48 (1948), and 4: 347--354. 1953; Moldenke, Lilloa 4: 315--316. 1939; Moldenke, Carnegie Inst. Wash. Publ. 522: 200--201. 1940; Sampaio & Peckolt, Arquiv. Mus. Nac. Rio 37: 334. 1943; Stellfeld, Trib. Farmac. 19 (10): 163--164. 1951.

Additions and corrections to the List of Excluded Species published by me in Brittonia 1: 471--472 (1934) are as follows:

Aegiphila capitata Banks & Soland. ex Moldenke, Prelim. Alph.

List Invalid Names 1, in syn. 1940 -- not verbenaceous.

Aegiphila incana Turcz., Bull. Soc. Imp. Nat. Mosc. 36 (2):

218. 1836 = Callicarpa cubensis Urb. [not C. incana as stated previously].

Aegiphila laevigata A. L. Juss., Ann. Mus. Hist. Nat. Paris

7: 76. 1806 = Parameria laevigata (A. L. Juss.) Moldenke.

Aegiphila paludosa T. S. Brandeg., Univ. Calif. Publ. Bot. 4:

191. 1913 = Clerodendrum ligustrinum var. paludosum (T. S. Brandeg.) Moldenke [not typical C. ligustrinum as stated previously].

Aegiphila pauciflora Von Rohr ex Moldenke, Prelim. Alph. List

Invalid Names 3, in syn. 1940 = Ixora ferrea (Jacq.)